A. SPCC FIELD SHEET
(To be completed if SPCC Regulation is applicable to Facility - See 40 CFR 112.1)

1a. NAME OF FACILITY Clark Oil Refinery	**1B. TYPE OF FACILITY** Oil Refining
1c. FACILITY LOCATION 131st & Kedzie, Blue Island, Cook County, Illinois 60406, 41° 39' 19" N, 87° 42' 27" W	
2a. NAME OF OWNER AND/OR OPERATOR RESPONSIBLE FOR FACILITY Clark Refining & Marketing, Inc.	**2b. TELEPHONE NUMBER** (708)385-5000
2c. MAILING ADDRESS 131st & Kedzie, Blue Island, Illinois 60406	

3. TYPES OF OIL STORED AND CAPACITY OF ABOVE GROUND AND BURIED STORAGE (Please see attached sheet)

LOCATION	CONTENTS	TYPE	CAPACITY (gallons)	DIMENSIONS diameter x radius (feet)

4. IS A CERTIFIED SPCC PLAN AVAILABLE FOR INSPECTION? [x] YES [ ] NO	**5. DATE OF INSPECTION** August 16, 1994
6. NAME AND REGISTRATION NUMBER OF CERTIFYING ENGINEER [ ] NOT AVAILABLE Thomas V. Freiley, Registration no., 62-17649 (Illinois).	**7. DATE SPCC PLAN WAS CERTIFIED** [ ] NOT AVAILABLE July 1, 1974
8. IS THE SPCC PLAN FULLY IMPLEMENTED? [ ] YES [X] NO [ ] NOT APPLICABLE	
9. NAME OF WATER BODY THAT POTENTIAL SPILL COULD ENTER: OR IF UNNAMED TRIBUTARY, THEN FIRST WATERBODY DOWNSTREAM Calumet-Sag Channel that leads to Calumet River.	

10. COMMENTS

OSC Len Zintak, U.S. EPA SPCC coordinator, Barbara Carr, Rep. from IEPA Rob Sulski, Rep. from Metropolitan Water Reclamation District of Greater Chicago, Sharon Sopcak-Phelan, TATM, Jane Malkin and Todd Ramaly, completed the SPCC inspection on August 16, 1994. Rep. from Clark Refinery, Ronald Snook (Environmental Manager), John T. Deaton (Manager, Operations), and Elva Carusiello (Environmental Engr.), met with the group before the inspection itself to explain what had happened during the oil spill from the facility on the Calumet-Sag Channel on August 11, 1994 and to answer questions regarding the facility's SPCC Plan. After a heavy rain event on the night of August 10, 1994, the facility's sewer and drain system had been overburdened with the amount of water flowing causing the water to bypass the facility water treatment system and going to the outfall towards the Calumet-Sag Channel. The plant authorities recognized the drainage problem and informed the inspectors that plans are underway to improve their system. A revised SPCC plan was promised to be delivered to the U.S. EPA within a few days.

11a. SPCC NO.	**11b. CASE NO.**	**11c. NPDES NO.** [ ] NOT APPLICABLE ILR000118
12a. INSPECTOR (sign) Jane D. Malkin		**12b. DATE** 9/20/94
12c. INSPECTOR (print) Jane G. Malkin/Todd Ramaly		

B. SPCC INSPECTION SUMMARY SHEET

SPCC NO.	CASE NO.	DATE OF INSPECTION August 16, 1994
NAME OF INSPECTOR (signature)		DATE OF DOCUMENTATION REPORT September 20, 1994
NAME OF INSPECTOR (print) Jane G. Malkin/Todd Romaly		NPDES NO. ILR000118

1. FACILITY

a. COMPANY

Clark Refining & Marketing

ADDRESS 131st & Kedzie Ave.		TELEPHONE
CITY Blue Island	STATE Illinois	ZIP CODE

FACILITY NAME
Clark Oil Refinery

b. FACILITY LOCATION

131st & Kedzie Ave., Blue Island, Illinois 60406

PARENT CORPORATION
Clark Refining & Marketing, Inc.

ADDRESS		
CITY	STATE	ZIP CODE

c. WATER BODY PROTECTED

Calumet River

2. PURPOSE

INITIATION: [ ] ROUTINE SURVEILLANCE [ ] COAST GUARD INFORMATION
[X] SPILL REPORT [ ] CITIZEN COMPLAINT [ ] OTHER (specify)

TYPE: [ ] PLAN PREPARATION [X] PLAN IMPLEMENTATION
[ ] FOLLOW-UP [ ] PLAN AMENDMENT

3. INSPECTION

INDIVIDUAL CONTACTED Elva Carusiello	TITLE Environmental Engineer
INDIVIDUAL CONTACTED Brad Burgmaster	TITLE Refinery Manager

NOTIFICATION

B. SPCC INSPECTION SUMMARY SHEET

4. FINDINGS

SOURCE IN APPARENT COMPLIANCE WITH SPCC REQUIREMENTS:

[ ] YES
- [ ] HAVE ADEQUATE PLAN
- [ ] NOT SUBJECT TO REGULATIONS
  - [ ] INSUFFICIENT STORAGE
  - [ ] NO REASONABLE SPILL EXPECTATION
- [ ] PLAN FULLY IMPLEMENTED
- [ ] NEW FACILITY OPERATIONAL FOR LESS THAN 6 MONTHS

[X] NO
- [ ] NO PLAN
- [ ] PLAN NOT PROPERLY CERTIFIED
- [ ] PLAN DOES NOT HAVE MANAGEMENT APPROVAL
- [X] PLAN NOT MAINTAINED AT FACILITY MANNED 8 HOURS/DAY
- [X] INADEQUATE PLAN (detailed SPCC plan review attached)
- [X] PLAN NOT FULLY IMPLEMENTED
- [X] PLAN NOT REVIEWED WITHIN 3 YEARS

[ ] OTHER

5. ATTACHMENTS
(None required if facility is in apparent compliance)

FILE	NONE	ATTACHED	ALREADY ON
*Detailed Observations	[ ]	[X]	[ ]
*Photographs	[ ]	[X]	[ ]
Slides	[X]	[ ]	[ ]
Map	[ ]	[X]	[ ]
*Field Drawing	[ ]	[X]	[ ]
*Comments	[ ]	[X]	[ ]
Telephone Conversations	[X]	[ ]	[ ]
*SPCC Plan	[ ]	[X]	[ ]

*ALL REQUIRED IF FACILITY IS NOT IN APPARENT COMPLIANCE. If photos not permitted, check "NONE" and explain. Add "SPCC Plan to List of Attachments when appropriate.

C. DETAILED SPCC DOCUMENTATION

FACILITY
Clark Refining & Marketing, Inc.

DATE OF INSPECTION

1. FACILITY DESCRIPTION

1a. TYPE OF BUSINESS/OPERATION
Oil refining.

1b. FACILITY OIL STORAGE

LOCATION	CONTENTS	TYPE	CAPACITY (gallons)	Dimensions diameter x height (feet)

1c. PREVENTION MEASURES PROVIDED

- Tanks have dikes as secondary containment.
- The facility stocks booms in the event of a spill.
- Level sensing devices are installed in tanks.
- Regular inspections are carried out for piping, fittings, and tanks for possible corrosion, leakage and for integrity.
- Manual checks are employed during the loading of trucks.
- Personnel are trained on regulations and spill preventions.

1d. APPEARANCE OF FACILITY (housekeeping)

- There were visible oil stains on the soil especially in the process areas.
- Rain that accumulated in the diking was not promptly drained. In one dike area, oil sheen was visible.

1e. PAST SPILL HISTORY

- Aug. 11, 1994 - estimated 2,000 - 3,000 gallons of oil spilled on the Calumet-Sag Channel due to overflow from the 6 ft. storm sewer after a heavy rainfall..
- May 14, 1990 - failure of a 6" flange gasket on Tank 804 spilling oil into the diking area. The valve in the diking area malfunctioned causing the oil to escaped the secondary containment.
- January 18, 1973 - during a heavy rain, an overflow containing oil from the 6 ft. storm sewer entered the Calumet/Sag Channel.

2. RECEIVING WATER (should spill occur)

2a. NAME AND/OR DESCRIPTION
Calumet-Sag Channel leading to Calumet River.

[X] Perennial [ ] Intermittent
[X] Water present at time of inspection
[X] Inspector traced discharge to receiving water
[ ] Inspector traced apparent drainage path to receiving water
[ ] Receiving water identified by company representative
[X] Receiving water identified from topo map
[ ] Receiving water identified by other means (specify):

C. DETAILED SPCC DOCUMENTATION

2b. PROBABLE FLOW PATH TO RECEIVING WATER

The facility has two outfalls, one to the Calumet-Sag Channel, and the other one to the Wireton Creek which is alleged by the facility to have been closed. The Calumet-Sag Channel flows east to the Calumet River. Wireton Creek flows into Stony Creek which flows to join the Calumet -Sag Channel approximately 2 miles east of Clark facility. The effluent from the facility's water treatment as well as the storm drains goes to the Calumet-Sag Channel. The boundary of the facility on the north side is Wireton Creek, and on the south side is the Calumet-Sag Channel which makes these two locations probable paths for an oil spill from the facility.

2c. CLIMATIC INFORMATION

Typical midwest climatic conditions.

3. COMMENTS

The facility reported a spill on the Calumet-Sag Channel on August 11, 1994 to which the USCG, U.S. EPA, IEPA, and other local agencies such as the Metropolitan Water Reclamation District, Alsip Fire Dept. had responded to. The facility was not able to produce an SPCC plan upon request of the OSC on the morning of Aug. 11 (Part 112.3(e)). Later, at approximately noon, Carusiello submitted the facility's SPCC plan originally prepared on July 1, 1974. The latest review of the SPCC plan occurred on August 1990, more than 3 years ago (Part 112.5(b)). The SPCC plan is not fully implemented (Part 112.7). During the inspection, it was noted that water accumulating in the dike for Tank #56 had not been inspected. Oil sheen was noted on the surface of the water inidcating a presence of leak in the area; water up to a foot in some areas were left standing in the dikes. Dikes of tank numbers, T-55, T-56, T-808, T804, T-45, and T-42 were measured to determine their respective volumes. The secondary containment as measured and calculated proves to be inadequate (Part 112.7 (e)(2)(ii)).

Tank #	Calculated Dike Capacity (gallons)	Tank Capacity (gallons)	Dike Capacity will Contain
T-55	2,450,000 .	4,015,200	61%
T-56	3,073,000	4,015,000	76%
T-808	4,800,000	5,010,000	95%
T-804	5,037,000	5,010,000	101%
T-45	385,301	1,264,200	30%
T-42	1,012,589	2,276,400	44%

In the facility's SPCC plan, tanks nos. 55 and 56 were group together in one secondary containment. During the inspection, this was noted not to be the case. Each tank was in its separate secondary containment.

C. DETAILED SPCC DOCUMENTATION

4. SPCC PLAN REVIEW

The SPCC plan proved to be inadequate in addressing the drainage problem of the facility. The plan should be updated to reflect changes in the plant. Since the facility have had more than two spills in the past twelve months according to U.S. Coast Guards based in Burr Ridge, the facility should submit a report and their SPCC plan for review to the Regional Administrator (Part 112.4). Additionally, the oil spill from the facility on August 16, 1994 was estimated at over 1,000 gallons which would require the facility to submit their SPCC plan to the Regional administrator for review.

The following is a list of the deficiency of the facility's SPCC Plan.

112.5 - Amendment of SPCC Plans by Owners and Operators

(b) The last review was completed on August 1990, more than 3 years ago.

112.7 - Guidelines for the Preparation and Implementation of SPCC Plan

The plan followed the sequence of 112.7

(b) The plan does not include a written description of rate of flow or quantity of potential spills nor its direction.

(c) Dikes are not large enough to contain 100% plus allowance for precipitation in some of the tanks (please see comments above).

5. SPCC AMENDMENT RECOMMENDATIONS (amendment inspections only)

N/A

C. DETAILED SPCC DOCUMENTATION

6. FIELD DRAWINGS (Attach more sheets if needed, and show north arrow of other orientation)

Please see attached drawings

FACILITY	INSPECTION DATE
INSPECTOR	

TABLE I

Secondary Containment Capacity

(For Bulk Hydrocarbon Storage Tanks)

A. DIKE CONTAINMENT

TK NO	Tank Capacity Bbls	Secondary Capacity (Approx.) Bbls	Grouped Tks	Other
Refinery				
6	5,000	8,100	6,16	
16	5,100	8,100	6,16	
17	5,100	5,100	-	
18	5,100	5,100	-	
28	2,000	3,100	28,29	
29	2,000	3,100	28,29	
35	10,500	23,800	35,36	
36	18,500	23,800	35,36	
37	18,700	30,000	37,38	
38	18,700	30,000	37,38	
40	54,200	55,000	-	
41	54,200	50,000	-	Spill-over to T
42	54,200	46,900	-	Spill-over to T
43	30,100	40,000	43,44	
44	30,100	40,000	43,44	
45	30,100	20,900		Spill-over to T
46	67,100	75,200	46,47	73,7
47	67,200	75,200	46,47	
51	80,600	85,000	-	
52	80,600	79,000	-	
53	79,800	117,500	53,54	
54	79,800	117,500	53,54	
55	95,600	152,500	55,56	
56	95,800	152,500	55,56	
61	5,100	37,500	61 thru 66	
62	5,100	37,500	61 thru 66	
63	5,100	37,500	61 thru 66	
64	5,100	37,500	61 thru 66	
65	5,100	37,500	61 thru 66	
66	5,100	37,500	61 thru 66	

Table I (Cont'd)

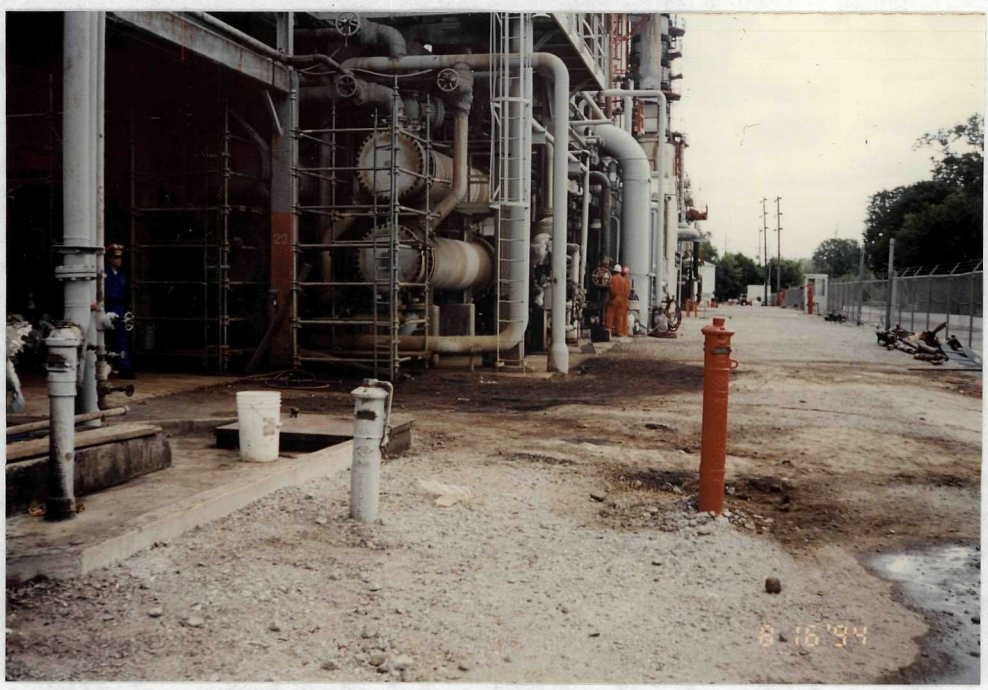
TK NO	Tank Capacity Bbls	Secondary Capacity Bbls	Grouped Tks	Other
71	20,300	28,000	71,72	
72	20,300	28,000	71,72	
73	15,500	22,500	73,74	
74	15,500	22,500	73,74	
75	15,500	24,100	75,76	
76	15,500	24,100	75,76	
77	15,500	26,000		
78	15,500	26,000		
81	20,300	40,300	81,82	
82	20,300	40,300	81,82	
83	20,300	31,100	83,84	
84	20,300	31,100	83,84	
85	20,300	31,800	85,86	
86	20,300	31,800	85,86	
		-		
		-		
322	3,100	3,100	322,323	
323	3,100	3,100	322,323	
801	119,300	115,000		
802	119,300	113,000		
803	119,300	109,000		
804	119,300	104,000		
806	119,300	111,000		
807	119,300	114,000		
808	119,300	101,000		

Table I (Cont'd)

B. CURBING CONTAINMENT

TK NO	Tank Capacity Bbls	Secondary Capacity
Sludge	270	Tank has conical bottom and is elevated for gravity transfer to trucks. Separator side and foundation wall forms three sides of spill containment enclosure. Remaining side is curbed by an earth dike.

C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT Soil stains evident in some areas of the process section of the facility.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			**WITNESSES** Todd Ramaly		
DATE August 16, 1994	**TIME** 1100 hours	**DIRECTION**	**CAMERA** Olympus Infinity	**FILM** 35mm	**ATTACHMENTS**



C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT 38 Junction Box - weir separator for process drains and storm drain.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			**WITNESSES** Todd Ramaly		
DATE August 16, 1994	**TIME** 1145 hours	**DIRECTION**	**CAMERA** Olympus Infinity	**FILM** 35mm	**ATTACHMENTS**

C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT Drainage under the loading rack. The drainage connects to the storm sewer.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			**WITNESSES** Todd Ramaly		
DATE August 16, 1994	**TIME** 1150 hours	**DIRECTION**	**CAMERA** Olympus Infinity	**FILM** 35mm	**ATTACHMENTS**

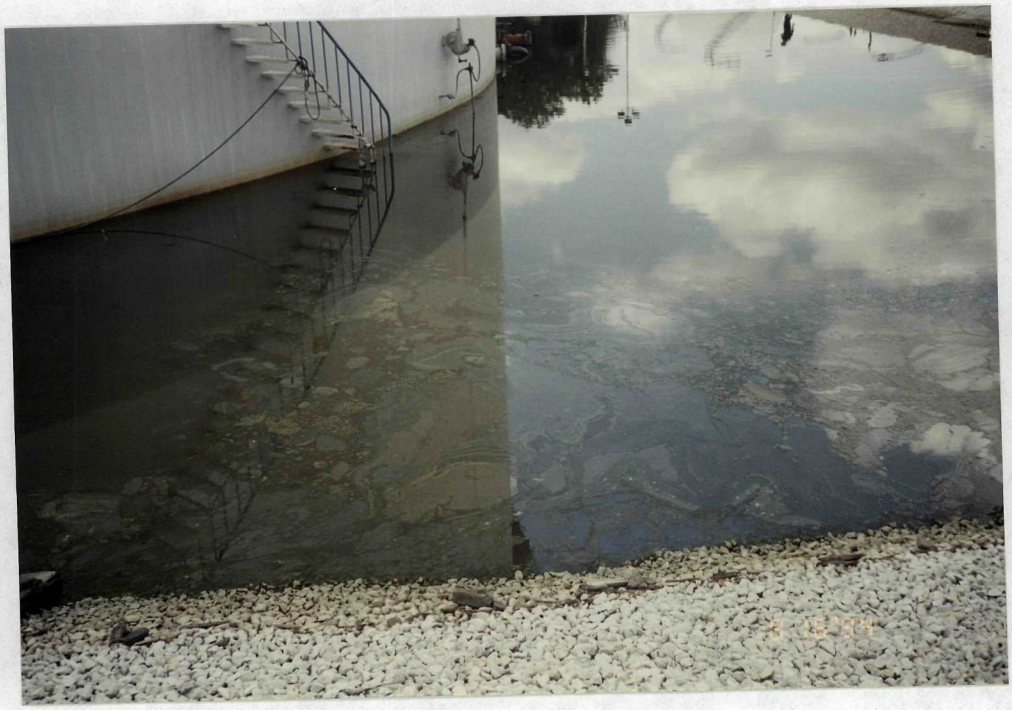
C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT Water that accumulated in the dikes after the rain.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			**WITNESSES** Todd Ramaly		
DATE August 16, 1994	**TIME** 1215 hours	**DIRECTION**	**CAMERA** Olympus Infinity	**FILM** 35mm	**ATTACHMENTS**

C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT Holding tank for overflow from the water treatment system.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			WITNESSES Todd Ramaly		
DATE August 16, 1994	TIME 1230 hours	DIRECTION	CAMERA Olympus Infinity	FILM 35mm	ATTACHMENTS

C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT Water treatment system.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			WITNESSES Todd Ramaly		
DATE August 16, 1994	TIME 1220 hours	DIRECTION	CAMERA Olympus Infinity	FILM 35mm	ATTACHMENTS

C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT Outfall to the Calumet-Sag Channel.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			**WITNESSES** Todd Ramaly		
DATE August 16, 1994	**TIME** 1230 hours	**DIRECTION**	**CAMERA** Olympus Infinity	**FILM** 35mm	**ATTACHMENTS**

C. DETAILED SPCC DOCUMENTATION					
7. PHOTOGRAPHS (Attach more sheets if needed)					
SUBJECT Oil sheen in the standing water in the dike for tank #56.					
FACILITY Clark Oil Refinery					
PHOTOGRAPHER Jane G. Malkin			**WITNESSES** Todd Ramaly		
DATE August 16, 1994	**TIME** 1245 hours	**DIRECTION**	**CAMERA** Olympus Infinity	**FILM** 35mm	**ATTACHMENTS**



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OVERSIZED MAP OF BLUE ISLAND FACILITY